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Dong Hoon Shin

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EXAMINER

HECKERT, JASON MARK

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 5/19/08 have been fully considered but they are not persuasive. Applicant bases much of his argument on the preferred embodiment of Whipple's invention. However, Whipple clearly states: "one may determine when the machine has sufficient water by sensing the end of oscillations or surges in the power consumption of the motor. Several methods for sensing when the motor has ceased to surge are by measuring the *pump motor current*... Thus a signal is available for determining when the pump motor has ceased to surge" (col. 6 line 53-61). Whipple goes on to describe an embodiment utilizing amplitude of oscillation and slope of average signal.

2. Per the applicant's disclosure, "if E2 is less than the predetermined value E1, it is determined that the amount of water supplied is insufficient. This insufficient water supply would result in an adverse condition such as air suction noise." (paragraph 29) Examiner believes the "air suction noise" refers to pump cavitation, or what Whipple calls surging. Whipple obviates monitoring current until a signal is achieved indicating that cavitation has ceased. When this condition is achieved, water filling can be stopped. This teaching encapsulates the instant application's claim 1. Determining the signal is considered to be within the skill of one practicing the art whether the signal is determined experimentally and programmed into a controller or whether it is determined by a controller taking real-time measurements. Both rely on the fundamental teaching

disclosed by Whipple: that pump motor current provides a signal for when cavitation stops thus indicating that fill can stop.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON HECKERT whose telephone number is (571)272-2702. The examiner can normally be reached on Mon. to Friday, 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/
Supervisory Patent Examiner, Art
Unit 1792

JMH